Agronomy Solutions

SUMMER NEWSLETTER 2015/2016

Farming profitably with low commodity prices

The 2015 to 2016 growing season will have been one of the driest for many years in Canterbury. The first crops harvested on dry land are showing reduced yields, however quality is surprisingly good. We put this down to crops starting the spring with very low soil water reserves and setting themselves up accordingly. Once irrigated crops start to be harvested we expect to see significant yield improvements and good quality. Farming with reduced commodity prices has its' challenges and is not likely to change in the near future. Calculated cost cutting has to be considered to maintain production and farm profitability. Yield is king, even with reduced prices.

Fertiliser is the greatest variable cost in production. Savings can be made by targeting specific needs of crops and specific areas of paddocks. This is more efficient, cost effective and wiser than just reducing the overall amount spread.

On 23rd January 2015 Warren and Joy Darling harvested a World Record barley crop. Agronomy Solutions had managed the agronomy and carried out Precision Nutrient Management on the paddock prior to this crop being planted.

World Record Barley Crop

Achieving a world record barley yield of 13.8T / Ha is a huge credit to the Darling family. The Darlings leave no stone unturned when it comes to smart management practises. They look after their assets and this includes taking great care of the soil. With a well thought out toolbox Warren has systems in place to help maintain structure, avoid compaction and keep nutrient levels at their optimum. This includes using Agronomy Solutions services.

Giving our crops the best chance without exceeding budget

Precision Nutrient Management allows us to make variable rate fertiliser recommendations specific to the crop. Thus ensuring the plants have access to the nutrients they need during the growing season. For example, onions require much more Phosphate than clover. In doing so each part of the paddock is treated to give the correct amount of fertiliser needed for that particular area. Some areas will receive more and others less. This can often result in a significant saving in the amount of fertiliser needed or on the rare occasion that this is not the case then areas of low fertility are raised to increase yields. Results from the last 5 years in New Zealand and over 20 years in the UK show this to be a "win, win" situation.

Most of the answers lie in the soil. Whether we are dairying or cropping maintaining a healthy plant with good root structure and the correct balance of soil nutrients gives us the best chance to cope with the changing growing seasons.
Managing the correct level of nutrients in the soil will also help us to farm better and more efficiently. A plant needs a certain amount of N, P and K and no more. It also needs nutrients available in balanced amounts in order for them to work in synergy. There is still a lot of advice around concentrating on P and N with often little regard paid to Potassium and the important soil pH.
We would suggest looking at the whole of the plants needs and address each one of these where they are deficient and limiting plant availability. Plants are no different to any other species in that they respond best to a healthy balanced diet.

When to Retest – Retesting soil is very much based around managing and maintaining soil pH at a desired level. Light sandy soils under irrigation will leak lime from the soil profile faster than heavy clay soils hence the need for testing and correcting soil pH being more frequent. We would recommend testing light soils every 3 years and heavy clay soils every 5 years.

Will savings be made on fertiliser ??- This is very much dependent on the farm and how it has been managed in the past. What can be guaranteed is that you will be very much more efficient with your fertiliser use and only be applying what the crop is going to need after the soil has delivered what it can from residual nutrients in the soil fertiliser pool. With farms that have areas of high levels of nutrient in them significant savings can be made but you can rest easily knowing that any areas that are deficient have been addressed and will not suffer from savings in fertiliser. This is much more precise and thorough than the conventional way of a single test and basing decisions on that one result.

Soil pH and sensitive crops - It is a good idea to plan well ahead and address pH issues at least a year before planting crops that are very sensitive to soil acidity. Carrots, Onions Beets, Peas and Barley will all fall over very quickly if soil is slightly acidic. Our advice is to plan ahead and soil test so that you can correct any issues well in advance of these crops being planted. This will give time for the lime to work and correct the soil. If time is short then applying lime prior to planting can still be beneficial especially if it is worked into the seedbed.

Rotational soil Testing - Testing a proportion of your farm each year is the is the best way to manage nutrients and Soil pH. This insures that all issues are picked up before the negative effects of acid soil and deficient nutrients effect growing crops. Managing testing in this way spreads out testing costs and spreads the lime costs evenly from year to year. If you have a light soil type you would aim to test 33% of the farm a year and return every third year, and with a heavy soil type test 20% of the farm and return every 5 years.

A reminder of how our system works :- With the start of a new cropping year after harvest we thought that now is a good time to remind growers how to get the most out of previous paddocks that have been tested. Our system works by gently correcting soils over a period of time, with the exception of pH where the correction is applied in the year of testing. With Phosphate, Potassium and Magnesium the aim of our system is to correct soils gently by supplying maintenance fertiliser based on the potential yield of intended crop when the soil is at a desired level. With soils that are below desired levels we supply maintenance with the addition of build up fertiliser to slowly increase the soil nutrients in the direction of the target level. With areas of paddocks that tests show have excessive nutrients in the soil we would recommend applying sub maintenance to allow soil tests to slowly decline to desired levels over a period of time.

Working to a budget- with Agronomy Solutions system of rigorous testing it allows for the spread the fertiliser budget around the farm without putting the crop at risk if the budget spend is less than the crops true requirement. By targeting the low areas and reducing applications on high areas the fertiliser will go much further with every area benefiting proportionally.

Agronomy Solutions have been New Zealand's pioneers in this technology and partnered with the UK leading precision soil testing company are well placed to complete your soil testing requirements.

Action- Contact the Agronomy solutions as soon as possible with a list of paddocks that you would like sampled. Also include details of intended crop, expected yield and whether straw will be removed or incorporated. This will help speed up the process. Fertiliser plans and new variable rate maps can then be made up so that they are ready and waiting when you need them. Although our advice is totally independent ,we are also happy to work with other advisors and fertiliser companies to produce application maps for clients.

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